

## Town of Chatham Department of Community Development



TOWN ANNEX 261 GEORGE RYDER ROAD 02633 CHATHAM, MA TELEPHONE (508) 945-5168 FAX (508) 945-5163

DATE: October 14 2014

MEMO TO: Chatham Planning Board

FROM: Paul Lagg, GIS Coordinator

CC: Deanna Ruffer, Community Development Director

RE: Conservancy District Bylaw Analysis

#### **BACKGROUND:**

At the 2014 Annual Town Meeting, the Planning Board sponsored *Article 35 - Zoning: Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS) Changes.* The single objective of this article was to adopt the new FEMA flood maps into the local zoning bylaw. As a condition of continued eligibility in the National Flood Insurance Program (NFIP), FEMA requires that communities adopt the new Flood Insurance Rate Maps (FIRMs). This article satisfied FEMA's basic requirement for compliance with the NFIP.

The article passed at Town Meeting resulted in the creation of two different regulatory boundaries within the zoning bylaw related to the floodplain:

- Flood Plain District Boundary Delineated by 2014 Flood maps
- Conservancy District Boundary Delineated by 1998 flood maps

The Planning Board did not propose to incorporate the new flood maps into the Conservancy District section of the bylaw. This decision was made based on an identified need to further analyze the potential impacts on existing land uses.

#### **ANALYSIS**

At the request of the Planning Board, the Community Development Department has analyzed the Conservancy District and Floodplain District sections of the Zoning Bylaw. The purpose of this analysis is to gauge the level of impact on properties that would be incorporated into the conservancy district, if the boundaries of this district were to be delineated by the 2014 Flood Insurance Rate Maps and on those properties that would be within 50 feet of this boundary.

A two part analysis was done by the Department. The methodology used and results of this analysis are provided below:

#### 1. GIS ANALYSIS

- 1992 Conservancy Areas and 2014 flood zone areas including 50 ft. setback areas were overlaid with town parcels.
- Conservancy & setback areas were "clipped" from parcels to derive "buildable upland" areas
- Driveway and parking areas were "clipped" from the buildable upland portion of remaining parcels
- Building coverage was calculated based on combined total area of all buildings on each parcel (Note: buildings outside of buildable upland were included in total bldg. area calculation)

#### 2. COMPARATIVE BYLAW ANALYSIS

Bylaws from other communities were examined to evaluate how similar communities regulate land use within coastal areas susceptible to flooding.

#### **NON-CONFORMITY ANALYSIS RESULTS:**

- Adjusting the current Conservancy District boundary to match the extent of the 2014 Flood Zone will increase the number of parcels with non-conforming building coverage. It will also increase the number of driveways and parking areas that fall within the Conservancy District (as a reminder, driveways are currently only allowed by Special Permit in the Conservancy District).
- Non-conforming parcels identified in the analysis are distributed throughout the town. However the majority of identified parcels are located on the eastern half of town
- Parcels with the greatest potential for new non-conformities are those with lot areas less than 20,000 square feet. The majority of these lots contain older housing stock built 30+ years ago. These dwellings are more likely than newer dwellings to be targeted for demolition and re-development and would thus trigger the need seek a special permit or variance from the Zoning Board to meet the current requirements for development in the conservancy district.

TABLE 1: GIS ANALYSIS NON-CONFORMING PARCELS EXISTING CONSERVANCY DISTRICT VS. NEW FLOOD PLAIN

BLDG. UPLAND	MAX BLDG. COV	# NON- CONFORMING PARCELS CURRENT CONSERVANCY DIST.	# NON-CONFORMING PARCELS CURRENT CONSERVANCY DIST. + 50 FT. SETBACK	# NON- CONFORMING PARCELS NEW FLOOD PLAIN	# NON-CONFORMING PARCELS NEW FLOOD PLAIN + 50 FT SETBACK
<20,000 SF	2,800 SF	0	79	38	149
20,001 – 22,500 SF	2,850 SF	5	19	1	18
22,501 – 25,000 SF	2,900 SF	1	19	1	16
25,001 – 27,500 SF	2,950 SF	0	12	3	16
27,501 – 30,000 SF	3,000 SF	1	13	5	19
>30,000	10%	1	44	12	59
TOTAL		8	186	60	277

DRIVEWAYS WITHIN CURRENT CONSERVANCY DISTRICT	DRIVEWAYS WITHIN NEW FLOOD PLAIN	PARKING AREAS WITHIN CURRENT CONSERVANCY DISTRICT	PARKING AREAS WITHIN NEW FLOOD PLAIN
609	800	46	56
Total Parcels Impacted by Exist	1782		

Total Parcels Impacted by Existing (1992) Conservancy (Including 50 Ft Setback):

Total Parcels Impacted by (2014) Floodplain (Including 50 Ft Setback):

2078

(Totals listed above are approximate, and contain overlap between the two categories)

337

Total New Parcels Added To 2014 Conservancy District:

#### **OBSERVATIONS & SUGGESTED ITEMS FOR POTENTIAL AMENDMENT IN CURRENT ZONING BYLAW:**

Staff has identified several items within Section IV Overlay Regulations of the current bylaw that warrant review by the Planning Board. There is also one overarching policy issue that needs to be discussed and decided upon which is:

• Does the community want to continue to prohibit new construction within the flood plain and should that restriction extend beyond the floodplain boundary (i.e. 50 Ft. setback)?

While decisions made on the policy issue highlighted above may identify additional aspects for review and discussion, we have initially identified the following items for the Board's consideration.

**1.** Re-name the Conservancy District to "Shoreline Protection District" or other appropriate title.

<u>REASON:</u> The majority of content within the Conservancy District section deals with accessory uses and non-dwelling structures located along the coast and inland waterways. These include recreational activities, aquaculture activities, environmental maintenance activities as well as the regulation of docks and piers. In addition, because there is significant regulatory overlap for these uses and activities between zoning and wetlands regulations governed by the Conservation Commission, the current term "Conservancy" has the potential to create confusion and misinterpretation regarding the respective roles and responsibilities between the Zoning Board of Appeals and the Conservation Commission. This recommendation would provide better clarity as to the purpose of this section of the bylaw.

2. Remove requirements related to construction of dwelling units from the existing Conservancy District section and insert those same requirements into the Flood Plain District section (items below)

#### Prohibited Uses

- D. "No person shall construct a residential dwelling unit or use a houseboat or barge designed or used as a dwelling unit in the Conservancy District Flood Plain District."
- E. "No person shall construct any building in <del>Zones V and V1-30</del> **Zone VE** as defined on the flood Insurance Rate Maps prepared by National Flood Insurance Program for the Town of Chatham, dated <del>June 20, 1998</del> **July 16, 2014**."

<u>REASON:</u> A major vulnerability identified in the current bylaw is that construction of new dwelling units within the Flood Plain District is <u>not</u> prohibited. This prohibition is contained only within the Conservancy District section, the boundary of which, prior to July 16, 2014 had been identical to the Flood Plain District. Under the current bylaw, a property located outside of the Conservancy District but within the Flood Plain District could technically support the construction of a new dwelling. This recommendation brings the practical benefits of this prohibition into a more logical area within the bylaw and strengthens the stated purposes of the Flood Plain District.

3. Amend dates in sections of the existing Conservancy District (to be relocated to Flood Plain District as noted in item #2 above) to correspond to the effective date of the current Flood Insurance Rate Maps (July 16, 2014).

<u>REASON:</u> This recommendation is a housekeeping measure meant to ensure compliance with the National Flood Insurance Program and consistency within the bylaw.

4. Remove 20 foot height restriction for residential structures from the existing Conservancy District and maintain the restriction for non-residential accessory structures. (No new height restriction will be added to Flood Plain District)

<u>REASON:</u> The height restrictions for residential structures included within the Conservancy District section do not appear to be tied to any technical or scientific basis. Among other communities included in this analysis, Chatham is the only community that has a district specific height restriction for primary structures in the flood plain. It is the opinion of Staff that such height restrictions provide a dis-incentive for incorporating enhanced flood protection measures for new or re-developed properties. The current height restriction forces property owners to seek special permits or variances to achieve the public safety and property protection measures for which the Conservancy District has been explicitly created. This recommendation would encourage property owners and developers to be proactive in their approaches to flood hazard mitigation. It also creates the opportunity to incentivize mitigation activity in the interest of enhancing public safety and preventing property damage. As an example, the Town of Hull has initiated a "Freeboard Incentive Program" that offers reduced fees for properties that elevate two feet or more above the base flood elevation. Elevating above the base flood elevation also provides significant cost savings on flood insurance. During the past three years, Hull has reported a high level of participation in this incentive program.

5. Remove the requirement for special permit for the construction and maintenance of driveways within the Conservancy District ("Shoreline Protection District") and simply require all driveways constructed after a date specific to be constructed of porous materials.

<u>REASON:</u> The construction and maintenance of a driveway or roadway within the Conservancy District presently falls under the jurisdiction and regulatory oversight of both the Conservation Commission and the Zoning Board. The objective of this item within the Conservancy District section is primarily to protect environmentally sensitive areas from unsuitable development and to ensure that any action undertaken to existing development incorporates appropriate mitigation measures. There are already several items listed under the "Prohibited Uses" section of the Conservancy District which strengthen these protections and prohibit unsuitable development. Additionally, any proposed development would have to meet the requirements of the Conservation Commission regulations. Any activity that does not fall under the prohibitions of the conservancy district or the conservation regulations should be allowed by right.

#### COMPARATIVE BYLAW ANALYSIS - CONSERVANCY DISTRICTS/FLOOD PLAIN DISTRICTS - 10/8/14

TOWN	CONSERVANCY DIST. SECTION	FLOODPLAIN DIST. SECTION	DOCKS/PIERS SECTION IN ZONING BYLAW	DISTRICT SPECIFIC BLDG HEIGHT RESTRICTION	SPECIAL PERMIT USES CONSERVANCY DIST.	SPECIAL PERMIT USES FLOODPLAIN DIST.	NOTES
BREWSTER	YES	YES	NO	NO	<ol> <li>NON-RES BLDGS FISHING, AGRICULTURE ETC.</li> <li>DAMS, DRAINAGE WORKS BY PUBLIC AGENCY</li> <li>APPROPRIATE MUNICIPAL USES</li> <li>LANDFILLING</li> <li>DREDGING, WATERCOURSE ALTERATION</li> <li>CERTAIN ACCESSORY USES RELATED TO SCIENTIFIC RESEARCH/DEVELOPMENT</li> </ol>	N/A	RECOMMENDED USES FOR FLOODPLAIN DISTRICT  1. AGRICULTURAL  2. FORESTRY  3. RECREATIONAL USES PLAY AREAS, FISHING HUNTING  4. CONSERVATION PURPOSES  5. WILDLIFE MANGT, HORSE PATHS, BIKE PATHS ETC.  6. TEMP NON-RES STRUCTURE FOR AGRICULTURE, HUNTING OUTDOOR ACTIVITIES  7. PRE-EXISTING STRUCTURES  DOCKS/PIERS COVERED UNDER CONSCOMM REGS
DENNIS	NO	YES	NO	NO	N/A	N/A	
DUXBURY	YES (WETLANDS PROTECTION OVERLAY)	YES (FLOOD HAZARD OVERLAY DIST.)	YES	YES 20 FT FOR ACCESSORY STRUCTURE	N/A	SEE DUNE PROTECTION DISTRICT & WETLANDS PROTECTION DISTRICT SPECIAL PERMIT USES	PIERS INCLUDED IN WETLAND PROTECTION OVERLAY &     WATERFRONT SCENIC OVERLAY SECTIONS AND     CONSCOMM REGS     NEW CONSTRUCTION IN FLD HAZARD AREA MUST BE     LANDWARD OF WETLANDS PROTECTION OVERLAY     DISTRICT
HARWICH	NO	YES	NO	NO	N/A	N/A	DOCKS/PIERS WATER DEPENDENT STRUCTURES PB MANGT GUIDELINES/LOCAL CONSCOM REGS
HULL	YES (CONSERVATION DIST)	YES	NO	NO	N/A	N/A	
MARSHFIELD	NO	YES	NO	NO	N/A	NON-RES STRUCTURES (BOATHOUSES ETC)     RESTORATION/RECONST HISTORIC REGISTER STRUCTURES	COASTAL WETLANDS DISTRICT DOCKS/PIERS NOT FOUND IN ANY REGS
ORLEANS	YES	YES	YES	YES 20 FT NON-RES STRUCTURES	<ol> <li>NON-RES STRUCTURES RELATED TO FISHING/AQUACULTURE</li> <li>DRAINAGE WORKS</li> <li>EDUCATIONAL/RELIGIOUS</li> <li>FABRICATED WALKS/TRAILS/DOCKS/PIERS</li> </ol>	N/A	20 FT RESTRICTION CONSERVANCY DIST RELATED TO SPECIAL PERMIT USES ONLY  NO PROHIBITION OF NEW DWELLINGS IN CONSERVANCY OR FLOODPLAIN EXCEPT IN V ZONE (FLOODPLAIN DIST. SECTION)
SCITUATE	NO	YES	NO	YES 20 FT NON-RES STRUCTURES	N/A	<ol> <li>FOOTBRIDGES</li> <li>MUNICIPAL PARKS/WATER SUPPLY FACILITIES</li> <li>TEMP STORAGE</li> <li>CERTAIN AGRICULTURAL USES</li> <li>NON-RES STRUCTURES FOR FISHING</li> <li>SUBSTANTIAL IMPROVEMENT OF STRUCTURES PRIOR 1992 (CONSISTENT WITH NFIP/MA BLDG CODE</li> </ol>	SALTMARSH/TIDELAND CONSERVATION DISTRICT  • PERMITTED USE: NON-COMM DOCKS,CAT-WALKS  SPECIAL PERMIT USES STRUCTURE PERMITTED PRIOR TO ADOPTION OF CONSERVATION DIST.

# Conservancy District/Flood Plain District Bylaw Analysis

Chatham Planning Board
October 14, 2014

### **BACKGROUND**

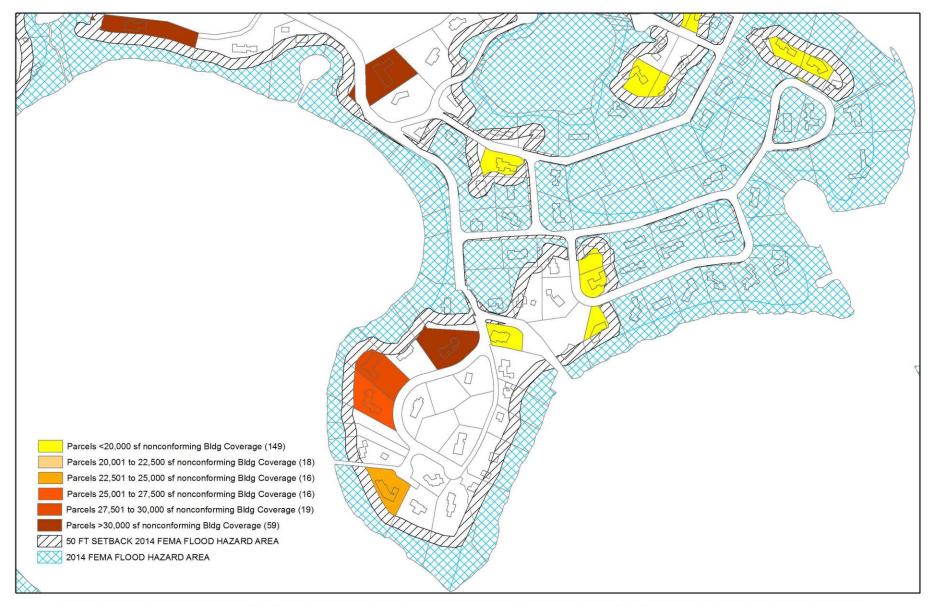
- 2014 ATM: Planning Board sponsored Article 35
- Adoption of new FEMA flood maps
- Satisfied basic requirement for compliance with NFIP
- Created two different regulatory boundaries
  - 1. Flood Plain District: Delineated by 2014 Flood Maps
  - 2. Conservancy District: Delineated by 1998 Flood Maps

## **ANALYSIS METHODOLOGY**

Planning Board requested staff to analyze the level of impact on properties that would be incorporated into the conservancy district, if the boundaries of this district were to be delineated by the 2014 Flood Maps and on those properties that would be within 50 feet of this boundary.

#### **Two Part Analysis**

- GIS Spatial Analysis
  - current conservancy area/new flood zone overlays
  - Non-conformity/buildable upland calculations
- Comparative Bylaw Analysis
  - Conservancy Districts/Flood Plain Districts
  - Bldg Height Restrictions (District Specific)
  - Special Permit Uses



NON CONFORMING BUILDING COVERAGE FOR PARCELS IMPACTED BY 2014 FEMA FLOOD ZONE

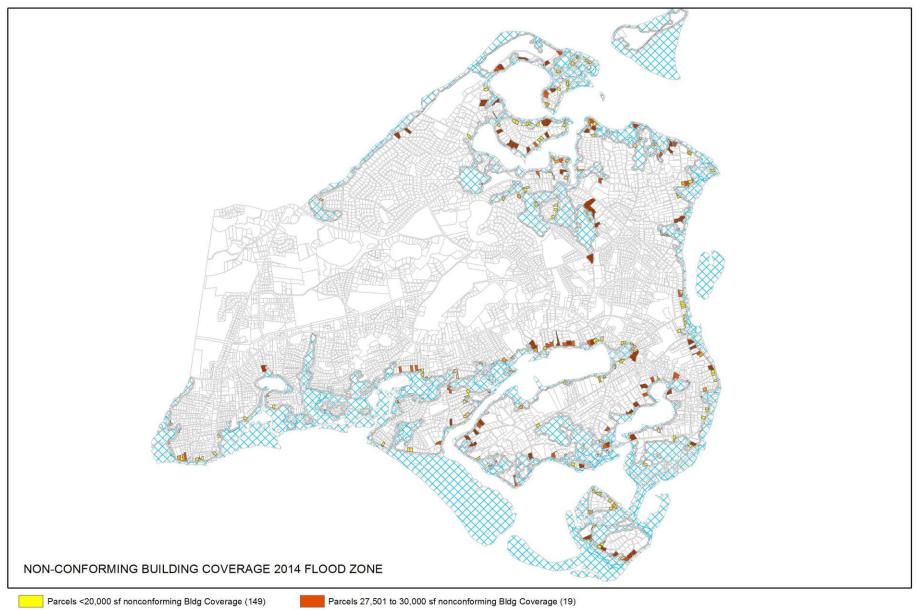




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Total Parcels Impacted by Existing (1992) Conservancy (Including 50 Ft Setback): 1782
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### **NON-CONFORMITY ANALYSIS**

- Adjusting current Conservancy District boundary to match extent of 2014
  Flood Zone will increase number of parcels with non-conforming building
  coverage.
- Parcels less than 20,000 sf. = greatest potential for new non-conformities
   Majority of these lots contain older housing stock built 30+ years
- These dwellings more likely to be targeted for demolition and redevelopment triggering the need seek a special permit or variance to meet the requirements of the current conservancy district.

## **POLICY ISSUE**

Does the community want to continue to prohibit new construction within the flood plain and should that restriction extend beyond the floodplain boundary (i.e. 50 Ft setback)?

- 1. Re-name the Conservancy District "Shoreline Protection District" or other appropriate title.
- Reduces confusion regarding respective roles between Zoning Board and Conservation Commission
- Provides clarity to the purpose of the bylaw section
  - Accessory Uses
  - Environmental Protection
  - Recreational activities
  - Aquaculture Activities
  - Dock & Piers
- Planning Board will want to review the district boundary

- 2. Remove requirements related to construction of dwelling units from the existing Conservancy District section and insert those same requirements into the Flood Plain District section
- Eliminates potential for construction of new dwellings within Flood Plain
- Strengthens and supports the intended purposes of the Flood Plain District section
- These requirements would apply anywhere within the 2014 flood plain
- Discussion/decision needed on extending the prohibition of new dwellings beyond the Flood plain District boundary (50 FT setback)

- 3. Amend dates in sections of the existing Conservancy District (to be relocated to Flood Plain District as noted in item #2) to correspond to the effective date of the current Flood Insurance Rate Maps (July 16, 2014).
- Maintains consistency within the bylaw
- Ensures compliance with National Flood Insurance Program

4. Remove 20 foot height restriction for residential structures from the existing Conservancy District and maintain the restriction for non-residential accessory structures.

(No new height restriction will be added to Flood Plain District)

- Restrictions not tied to technical or scientific basis
- Restrictions are a dis-incentive for incorporating enhanced flood protection measures
- Requiring Special Permit/Variance is counter to stated purposes of the Conservancy District
- Creates opportunities for proactive flood hazard mitigation (Example: Town of Hull Freeboard Incentive Program)

- 5. Remove the requirement for special permit for the construction and maintenance of driveways within the Conservancy District ("Shoreline Protection District") and simply require all driveways constructed after a date specific to be constructed of porous materials.
- Activity currently under duel jurisdiction Zoning Board & Conservation Commission
- Primary objective to protect environment from unsuitable development
- Prohibited Uses section already strengthens this objective
- Activity not prohibited under conservancy district and/or conservation regulations should be allowed by right

## **SUMMARY**

- 1. Existing Conservancy District is re-named "Shoreline Protection District"
- Items related to construction of residential dwelling units are removed from Conservancy District and placed into Flood Plain District
- 3. Effective map dates from the existing Conservancy District section are carried over into the Flood Plain District section
- 4. 20 Ft height restriction for residential structures is removed from existing Conservancy District
- 5. Driveways constructed of porous material become a permitted use within existing Conservancy District (i.e. "Shoreline Protection District")